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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR        | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------------|---------------------|------------------|
| 10/591,434   | 09/01/2006  | Toshifumi Inno              | 0649-1356PUS1       | 1720             |
| 2292 7590 08/05/2009<br>BIRCH STEWART KOLASCH & BIRCH<br>PO BOX 747<br>FALLS CHURCH, VA 22040-0747 |             |                             |                     |                  |
| EXAMINER<br>ZIMMERMAN, JOSHUA D  |             |                             |                     |                  |
| ART UNIT<br>2854   |             | PAPER NUMBER                |                     |                  |
| NOTIFICATION DATE<br>08/05/2009  |             | DELIVERY MODE<br>ELECTRONIC |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/591,434

**Applicant(s)**

INNO ET AL.

**Examiner**

JOSHUA D. ZIMMERMAN

**Art Unit**

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7,8,10-12,15 and 17-27 is/are pending in the application.
- 4a) Of the above claim(s) 18-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7,8,10-12,15 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/08/09 has been entered.

### ***Election/Restrictions***

2. Newly submitted claims 18-27 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: newly submitted claims 18-27 and the invention as originally claimed are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed **for PATENTABILITY** (that is, to show novelty and unobviousness), and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed **for patentability** because the subcombination is neither novel nor unobvious, as **evidenced** by the rejection below of claim 7 and also the rejections in the prior Office Actions. The subcombination has separate utility such as a method of making a lithographic printing plate which does not have an undercoat layer.

3. Since applicants have received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 18-27 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicants are advised that when applicants elect (by original presentation, in this instance) a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). That is to say, if the subcombination claims are found to be allowable, the newly presented claims (currently, claims 18-27) **will be rejoined** and examined.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 8, 10, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (US 6426173) in view of Shibuya et al. (US 2003/0077541) and Teng (US 2004/0013968).

Regarding claim 7, Shimizu et al. teach "a platemaking method of a lithographic printing plate (title), comprising developing with friction an exposed lithographic printing

plate precursor with a developer (column 13, lines 62-66; examiner notes that when developing on-press, friction is involved), wherein the exposed lithographic printing plate precursor is obtained by an image recording method comprising imagewise exposing a lithographic printing plate precursor with an imaging time per pixel of 1 millisecond or less (column 14, lines 53-57) using a laser light with an emission wavelength of from 250 nm to 420 nm (column 14, line 11), wherein the lithographic printing plate precursor comprises a support and an image recording layer, in which the image recording layer contains (A) a polymerization initiator and (B) a polymeric compound (column 5, lines 45-62) and is photosensitive in a wavelength of from 250 nm to 420 nm (column 5, lines 32-37)."

Furthermore, Shimizu et al. teach modulation of the solid-state semiconductor laser (column 4, lines 20-24).

Shimizu et al fail to teach that the emission wavelength is "selected from 405 nm or 375 nm," or that "the developer is a non-alkaline developer having a pH value of from 3 to 9, and comprises an organic solvent that is less than 40% by weight, a nonionic surfactant that has a hydrophile-lipophile balance of 8 or more and is from 0.01 to 10% by weight, and a water-soluble polymeric compound that is from 0.1 to 20% by weight."

Shibuya et al. teach a photosensitive composition which is an improvement over the prior art composition used by Shimizu et al. which results in a printing plate which has excellent workability, profitability and storage stability and that is highly sensitive to inexpensive short wavelength semiconductor lasers having wavelengths between 350 and 450nm (paragraphs 9, 11, 12 and 205). Therefore, at the time of the invention, it

would have been obvious to one having ordinary skill in the art to use the photosensitive composition of Shibuya et al. in the modified method of Shimizu et al. in order to achieve a printing plate which is sensitive to inexpensive short wavelength semiconductor lasers and which has excellent workability, profitability and storage stability.

Teng teaches developing, with friction (paragraph 38), a lithographic printing plate similar to that of Shimizu et al. by using a non-alkaline aqueous developer that has "a pH value of from 3 to 9 (abstract), and comprises an organic solvent that is less than 40% by weight (paragraph 36), a nonionic surfactant that has a hydrophile-lipophile balance of 8 or more (paragraph 36; at least polyethylene glycol meets this limitation) and is from 0.01 to 10% by weight (paragraph 36), and a water-soluble polymeric compound (paragraph 36: gum arabic)." Teng uses said developer in order to use a developer which does not use caustic liquids and which is easier to maintain (paragraph 8). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use the developer of Teng in the modified method of Shimizu et al. in order to have a developer which does not use caustic liquids and which is easier to maintain. Furthermore, one having ordinary skill in the art would have a reasonable expectation of success since the plates of Teng and Shimizu et al. comprise similar components.

The final limitation that the water-soluble compound be present in an amount from 0.1 to 20% by weight is deemed to not define over the modified method of Shimizu et al. because it was known at the time of the invention to provide said water-

soluble compound in said range in order to achieve, at least in the case of conditioning the substrate, sufficient conditioning.

Regarding claim 8, Shimizu et al. further teach "wherein the support has an anodized film with sealed micropores on the surface (column 7, lines 50-53; paragraph bridging columns 7 and 8)."

Regarding claim 10, Shimizu et al. further teach "wherein the image recording layer further contains (C) a binder polymer having an ethylenic unsaturated bond in a main chain or a side chain of the binder polymer (C) (column 5, lines 53-62; paragraph bridging columns 6 and 7)."

Regarding claim 11, Shimizu et al. further teach "wherein the binder polymer (C) does not have an acid group (paragraph bridging columns 6 and 7)."

Regarding claim 15, Teng further teaches "wherein the developer further comprises an anionic surfactant (paragraph 36, specifically the second sentence)."

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al., Teng and Shibuya et al. (US 2003/0077541), as applied to claim 7 above, further in view of Okazaki et al. (US 2004/0247011).

Regarding claim 12, Shimizu et al. as modified teach all that is claimed, as applied to claim 7 above, except "wherein the exposure is carried out using an optical system comprising: a DMD or GLV modulation element; and a semiconductor laser with a wavelength of 405 nm or 375 nm."

Okazaki et al. disclose an exposure system for semiconductor lasers emitting at 405 nm (paragraph 89) used to expose printing plates (paragraph 111) which uses

DMD or GLV modulation devices (paragraph 50). The system of Okazaki et al. is produced at low cost and is of a simple construction. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use the exposure system of Okazaki et al. in the modified method of Shimizu et al. in order to simply expose the printing plate and with low cost.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al., Teng and Shibuya et al. (US 2003/0077541), as applied to claim 10 above, further in view of Sugasaki et al. (US 2004/0072101).

Regarding claim 17, Shimizu et al. as modified teach all that is claimed, as in claim 10 above, but fail to specifically mention the proportion of the unsaturated double bond in the ethylenic unsaturated bond relative to the binder polymer.

However, Sugasaki et al. teach making said proportion "from 0.1 to 10.0 mmol" in order to achieve good sensitivity and storability (paragraph 121).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to make the "the content of an unsaturated double bond in the ethylenic unsaturated bond [be] from 0.1 to 10.0 mmol relative to 1 gram of the binder polymer" in order to achieve good sensitivity and storability.

### ***Response to Arguments***

8. Applicants' arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA D. ZIMMERMAN whose telephone number is (571)272-2749. The examiner can normally be reached on M-R 8:30A - 6:00P, Alternate Fridays 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman  
Examiner  
Art Unit 2854

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